Submission Cover Sheet

Fingerboards Mineral Sands Project Inquiry and Advisory Committee - EES

Request to be heard?: Yes

Full Name:	David Jochinke
Organisation:	Victorian Farmers Federation
Affected property:	
Attachment 1:	SB201029LG-Finge
Attachment 2:	
Attachment 3:	
Comments:	See attached submission.





SUBMISSION

Environment Effects Statement Fingerboards Mineral Sands Mine

29 October 2020

Victorian Farmers Federation | ABN: 67 079 980 304 | 24 Collins Street Melbourne p: 1300 882 833 | f: 03 9207 5500 | e: vff@vff.org.au | w: www.vff.org.au



OUR POSITION

Agriculture is a key primary industry in Victoria and is a major economic driver for the Victorian economy. It is critical that any proposal that impacts directly – and indirectly – on agriculture, food security and perceptions of clean green produce are considered in a comprehensive manner. If the proposal is approved there must be:

- a high degree of certainty that the control mechanisms are appropriate;
- understanding of the consequences of any control mechanism failure;
- onsite monitoring based on each risk / consequence; and
- certainty to agricultural producers via binding agreements regarding compensation mechanisms and levels for each breach / failure of a control mechanism which impacts on their economic well being and/or physical and mental health.

A majority of mine sites in Victoria are located on agricultural land. The VFF for many decades has worked with the Minerals Council of Australia to provide information to landholders on their rights and land access considerations. The VFF also advocates for legislative and process improvements to ensure agricultural land uses are better understood and considered in regulatory processes.

To this end clause 26A of the *Mineral Resources (Sustainable Development)* Act is relevant – where it can require an assessment of land where agricultural production is important to protect for the economy. This clause primarily focuses on the mine site, as that had been the general experience. The *Fingerboards* proposal is one that has led VFF to consider that the assessment of agricultural impacts should be wider than the mine site alone.

On this issue it is critical to note that in July 2019 the Minister for Resources responded to some of the wider section 26A considerations by moving to 'safeguard' agriculture in the Mitchell River flats by excluding it from the ability to hold a mining licences.¹ VFF believes this is a recognition that this is significant agricultural land, however this designation does not seem to be referenced in key reports, It is important to note that the horticultural river flats have been identified using this Clause, as an area where mining cannot occur due to their values. It is therefore logical that both as a beneficial use and as an 'environment' to be protected, a high bar of certainty that there will not be impacts on this area from mining should be created. The VFF is concerned that the works approval submitted is very light in regards to considerations of impacts on beneficial use for agriculture.

The ABC news feature gives a good understanding of how many horticulture growers see the proposed mine as threats to their livelihood², but as they are off site they are not easily included in any compensation agreements or arrangements as 'land access' is not required. The horticulture report does not model or comment on the economic consequence of control mechanisms failing. This is a key shortcoming which needs to be recognised.

The VFF recommends that on this consideration alone the project requires further investigations to establish the economic cost to production if control mechanisms do not deliver the promised environmental outcomes. Further investigation are required to understand the consequences and allow for the preparation binding agreements with all farmers who may be impacted by the mine. These agreements should respond to each control mechanism, the level of breach, the consequence of breach,

¹ <u>https://earthresources.vic.gov.au/about-us/news/safeguarding-the-mitchell-river-floodplain</u>

² <u>https://www.abc.net.au/news/2019-07-24/minister-excludes-food-bowl-from-mining-exploration/11341050</u>



how compensation will be calculated and administered and how integrated management systems will respond to key threats to each crop or production system.

Relevance of VFF and the Mining and Petroleum Policy Principles to the consideration of the proposal

The VFF's Mining and Petroleum Policy Principles focus on the relevant industry and landholder considerations to be addressed to ensure that the landholder is willing to give consent and that the proposal provides an acceptable outcome for agriculture in the district. This policy position not only helps our members form an opinion on a proposal for land access, they can be a good guide to understand the proposal and its effects on the beneficial use of the land for agriculture.

Despite the location of the proposal in an highly productive agricultural district the need for technical agricultural advice was not well scoped from the start given no agricultural representation on the EES (until VFF requested) and additional studies, such as horticulture, being prepared to address issues that should have been clear from the original scoping process.

The VFF believes that all EES scoping documents for proposals on or with potential impact to agricultural land should be forwarded to the VFF for comment – and distributed to landholders in the area. Landholder knowledge and agricultural considerations are critical to the effectiveness of the assessment of impacts to the environment and the reliance on landholders seeing a notice in a paper rather than using modern consultation is not conducive to the level of transparency and oversight envisaged by the legislation.

The VFF recommends the EPA Works Approval application should be revised to clearly address issues relating to the beneficial uses of land for agriculture.

- Farmers should hold the right of veto over mining and petroleum activities on their land.

This is the scenario currently for stone resources. It leads to a more consultative and commercial discussion between the proponent and the landholder.

- <u>Landowners must receive appropriate compensation & payments for all mining and petroleum</u> <u>activities on their land.</u>

This point considers all the impacts – ability to sell (biosecurity); impacts on breeding (compounding loss); relocation; disconnection; stress and anxiety.

- <u>There must be no long-term adverse off-site impacts from mining and petroleum developments. For</u> <u>example on water supply or quality.</u>

Water quality and availability, dust (impact on product and human health), amenity (noise / light) are all potential impacts during the operation of the mine with a potential for long term loss of market if there are product quality concerns.

- Farmland must be rehabilitated to its previous productive use at the end of the life of a mining or petroleum development.

This should also include greater landholder involvement in the nature of the rehabilitation.

- Information on mining and petroleum issues must be made available to VFF members.

VFF shares the information it has with the membership. It seeks better recognition of the organisation and its ability to share information on EES / Mining proposals with impacted parties and to provide industry knowledge on likely impacts / consequences for consideration.

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- The rights of landholders must be protected in minerals and petroleum legislation.

The VFF expects that human rights (property) be considered in the ministerial assessment, including considerations of access, compensation and rehabilitation

- <u>Baseline information must be collected prior to the development of mineral or petroleum resources</u> and independent monitoring must be undertaken during the development.

Many VFF members are concerned with the location of monitoring devices. If the proposal is to go ahead monitoring devices should be established prior to commencement at each farm property.

Baseline data relating to availability of harvest staff, availability of temporary and long term accommodation and the costs of temporary and permanent accommodation should be established so control mechanisms can be implemented if required.

- In the case of land, air, or water contamination the onus should be on the mining or gas company to prove their activities are not causing the impacts.

The VFF recommends that the Minister review his decision to only have government representatives on Technical Reference Groups when agricultural land is involved. Councils, CMAS and government agencies rarely have the level of understanding of different commodities or production systems within commodities to be able to properly give oversight of technical documents relating to agriculture.

What is the value of agriculture?

Agriculture is often undervalued in planning / environment systems. Despite being one of the key sectors to the Victorian economy DELWP, through the Planning Policy Framework, does not see agriculture as an industry or an 'economic development' activity. The value of agricultural exports from Victoria is often in the order of \$15 billion. Victoria is one of the main producers of food for the Australian market and processing of agricultural produce is one of the key manufacturing sectors remaining in Victoria.

The EES process does consider investment and jobs. In this instance the usual assumption of the proposal is the only option for these jobs is more tenuous as the proposal is reliant on 'water' that is not currently available to the market. The question should be asked as to what is the value / jobs if that water is applied to high value agricultural production in the wider area? Would the use of that water for an ongoing use that is the purpose for which the land is zoned and with greater certainty of employment be a more efficient and lower risk use of natural resources?

Page 21 of the horticulture report includes a plan of high value vegetable production in relation to the mine site.



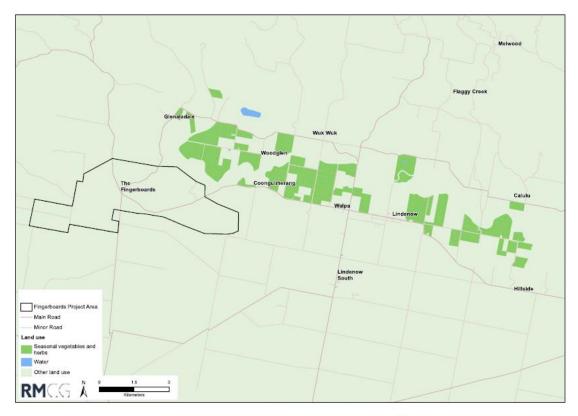


Figure 5-1: Land use for vegetable production in the Lindenow Valley¹⁵

The following is a series of points or issues raised in technical reports within the EES. They provide information regarding the value of agriculture in the district, which will be important in considering whether residual risk is acceptable. Failure to estimate the consequence of different failures on production, and potential loss of markets, make it difficult to make this assessment.

The following dot points provided to identify some of the information within the EES – and a potential consequence, so as to determine if further investigations on consequence are required.

- Fresh vegetables are subject to quality assurances in relation to dust content and presence of contaminants
- Horticulture in the Mitchell River flats is worth up to \$100 million per annum
- Horticulture in the Mitchell River flats supports 200 jobs
- Dust can lead to rejection of agricultural produce
- Horticulture producers do have water security concerns
- Increase in area under horticulture may impact on water security
- If additional water is available to support mine impact mitigation there is no guarantee that the mine would be successful if a public tender was undertaken.
- Horticulture producers protected "from mining footprint"
- -
- A major failure of control mechanisms could impact on market retention and image. Over the life of the mine horticultural production of \$2 billion could be at risk.

The likelihood of a catastrophic failure is considered 'low risk' but without proper assessment of consequence – such as the loss of 200 jobs and \$100 million in production per annum – the risk matrix is complete.



7. With one minor exception, the project is consistent with State and local planning policy. The exception relates to protection of agricultural land. There will be a temporary loss of agricultural production averaging 443 ha for the project life of 20 years, but little or no risk of permanent loss. The total acreage of agricultural land will generally be maintained post mining other than areas set up as native conservation areas. The economic benefit derived from the proposed mineral sands project will offset the temporary loss of productive land withdrawn from agricultural production.

VFF recommends that very careful consideration is given to all elements of Chapter 9 relating to agriculture. Is it comprehensive in its understanding of risk and consequence? Have / can the issue be appropriately controlled? What are the long term risks if there is a catastrophic failure? How will producers be compensated for impact of any non compliance issue / failure.

What are the relevant physical system components for agriculture?

Agricultural production is intrinsically linked to natural systems. Water and soil – and the quality of – are critical to its production. The topography of the proposal may create some challenges as most sand mines have been located in flatter and lower rainfall areas. Air quality in relation to dust also has a product impact in relation to the acceptance of direct to market food products grown in the Lindenow Valley.

Relevant physical system effects on land use include:

- geological conditions and features
- soil and geo-technical hazards
- hydrology and quality of surface, ground and marine waters
- geomorphological processes
- air quality

The Mitchell River floodplain is recognised as an important economic use – which cannot be subject to a mining licence. The geomorphological processes that created this resource are the same forces which in an extreme weather event may lead to deposition of materials with a more concentrated level of radioactivity in an area known for vegetable production. Although risk has been considered there has not been a calculation of the economic impact of an event which threatens market acceptance of the product.

What are the relevant social effect considerations for agriculture?

The proposal has already been quite divisive in the local community. The introduction of a new 'highly paid' workforce can lead to competition for accommodation for those employed in agriculture and seasonal work, which then can impact on social structures and increase vulnerability of lower paid works. There will be impacts on not only rural housing but on the rural workforce who are often working long hours much closer to the mine site than the "dwelling" which is the default receptor.

The horticulture report and Chapter 9 – Environmental and Socioeconomic Impact Assessment recognises that the mine would directly impact on the availability of labour for agriculture. As there are no easy technical solutions this is an area that needs detailed consideration as Covid has demonstrated that labour is a key threat to not only food security but the affordability of food.

The proposed mitigation measure of preparing a labour force strategy would have no real impact on issues regulated by the Federal Government – such as visas. It does not address flow on issues relating to payment differentials – including availability and affordability of accommodation. When vegetable crops in an area which is a significant supplier to market cannot be harvested, it can create both shortages of the



product and an increase in price with impacts on affordability of fresh vegetables to vulnerable communities.

The VFF recommends that:

- That Kalbar commit to grow and improve local housing stock
- That Kalbar seeks support from the Federal Government for visa programs to target any shortages in agricultural workforce
- That Kalbar commit to ensure the community benefits from the mine through a grants process

Relevant social effects include:

- potential changes to local population and demographic profile
- social structure and networks
- residential amenity & social well-being
- social vulnerability and differential effects on parts of the community
- housing and social infrastructure needs
- perceptions of aesthetic, recreational and other social values of landscape or locality
- attitudes to proposed development.

What are the relevant land use considerations for agriculture?

The horticulture report discusses in great detail landholder concerns relating to dust. Page 35 to 38 of this report discusses producers concerns regarding dust on product acceptability and market perceptions. Control mechanisms such as washing product on site would require greater access to water and would pass a compliance cost from the mine to the producer. There is no consideration of how these costs would be compensated for. No consideration of / cost estimate for a major failure causing contamination and loss of markets is included in this report. ^{II} The area is subject to extreme weather – east coast lows – which can lead to dam / levy exceedance and deposition of materials on the floodplain.

Relevant effects on land use include:

• potential for disruption or change to existing rural and urban land uses -including intensive horticulture with high labour requirements.

• access to natural resources (such as high-quality agricultural soils, earth resources and water resources).

What are the relevant economic considerations for agriculture?

It is often difficult to attract labour to work in agriculture – especially in remote locations. The mine proposal will create competition with existing labour markets – which will impact directly on ability to produce, harvest and sell agricultural goods.

The net increase in jobs from the mine may therefore be lower if it attracts existing agricultural work force which is difficult to replace. This may lead to the decline in production and flow on impacts regarding stewardship and management of natural resources.

Relevant economic effects might be on:

- levels of income
- investment and jobs (modelling of the flow-on effects between different sectors within a region may be appropriate)
- efficient use of natural resources.



In relation to the mine site and land access the VFF recommends closer consideration of the following issues:

- Loss of carrying capacity there may be a requirement for producers to change how they run their operation with significant economic losses accumulating over time. Reduced genetic potential/breeding history (through sale of stock), reduced stock numbers impacting annual income e.g. wool or meat sales, agistment fees if producer is required to retain head numbers, increased input costs e.g. fertiliser, feed to boost carrying capacity.
- Management of pest animals and weeds on buffer zones
- Biosecurity risk concerns particularly early on in the establishment of access routes onto and between properties
- Dust/water pollution. Increased dust pollution may have impacts on livestock health particularly in drought/dry seasons, for example increased dust in feedlots contributes to the prevalence of Bovine respiratory disease (BRD).
- Impact of dust on wool quality, quantity and value
- Fire risk/emergency response fire risk from the mine and management of traffic routes during times of emergency for example increased need for immediate access to truck stock or move stock along roads
- Asset loss and compensation livestock should be classified as assets/infrastructure
- Uncertainty inability for producers to forward plan with short term and long term plans uncertain. This has become a crucial part of business management for producers in the area particularly after drought.

Cumulative Impacts

The consideration of cumulative impacts of the proposal will be essential to determining whether and under what conditions the proposal can have an acceptable outcome. The VFF requests that very careful consideration be given to the following issues when considering these matters. If it is determined that the proposal can produce an acceptable outcome it will be critical to ensure that there is a simple and fair process for landholders to seek compensation for impacts / losses where operations are outside control limits.

The following 'indirect effect' considerations are considered essential for the horticulture areas in the Lindenow Valley which have been 'protected' from mining.

- are the effects reasonably foreseeable?
- how strong is the causal link or nexus between the project and the effects of concern?
- are the effects capable of being accurately assessed?
- could the effects be significant enough, in the context of relevant policy, to impinge on the acceptability of the project?
- are there other statutory mechanisms through which these effects will be addressed?
- If the proposal was to be approved the VFF believes the following actions are essential:
- incorporating necessary measures in conditions of particular statutory approvals
- having binding agreements with all landholders who may be impacted regarding availability of compensation for operations outside statutory approval
- ensuring the location of relevant monitoring equipment at each agricultural holding.

VFF is concerned that at 9.11.5 – Impact Assessment – operation commences with "Horticulture and agricultural producers are likely to experience similar issues and potential impacts as those expected for construction, such as dust deposition and disruption to farming practices". This assessment seemingly fails to fully understand the issues raised in the Horticulture report. This assessment has seemingly been relied upon in other reports as the consequences of dust in relation to acceptance of product under quality assurance schemes to horticulture have not been calculated or addressed as a key socioeconomic issue.



The VFF believes it is a key shortcoming that the dollar figure consequences of a serious control mechanism failure has not been calculated for horticulture production as this is essential to applying a risk rating.

VFF supports the preparation of the management plans for considerations such as noise, dust / air quality and water. These management plans should not purely focus on a dwelling as there will be significant numbers of agricultural workers exposed to noise and dust in the paddocks – and often much closer than the dwellings which are the main focus, demonstrating a more urban based understanding of risk.

Scoping

It is clear that poor understanding and policy regarding agriculture as a key element of the economy is impacting on the scoping of EES projects. For an EES to be effective it needs to be well scoped and with TRG members that can have robust input into the studies.

On first read the following 'scoping' element may support the idea that issues were identified from the start. "Social, land use and infrastructure: To minimise potential adverse social and land use effects, including on, agriculture (such as dairy, irrigated horticulture and grazing), forestry, tourism industries and transport infrastructure".

As there was no 'agriculture' expert on the TRG at its initial meetings, and the DELWP EES page for the project still does not state that Agriculture Victoria is on the TRG there is not a fulsome understanding of agriculture and horticulture issues in the initial studies. <u>https://www.planning.vic.gov.au/environment-assessment/browse-projects/projects/fingerboards-mineral-sands</u>

VFF wrote to both the Minister for Planning and the Minister for Resources requesting that VFF be included on the TRG due to significant agricultural values in the area. and seeking assurances that a s26A assessment be undertaken. This then led to the horticulture report being prepared.

Many reports, such as the land use report, give only passing assessment to off site agriculture. Consequences of events outside of control mechanisms are not estimated – and were not sought by the TRG. The planning assessment, despite no detailed consideration of off site impacts on an industry producing \$100 million of crops and employing 200 people. This may be due to not understanding the impacts or poor planning guidance on agriculture. As the Mitchell River flats have been given special designation under the Mineral Resources (Sustainable Development) Act this report should have given proper consideration. Failure to do so, and failure to reference any off site uses in the following conclusion, not only calls into question the recommendation but demonstrates the need for improved understanding of agriculture within the EES team at DELWP.

Poor considerations due to lack of knowledge of the production systems led to an inaccurate summary within the EES itself. Again in Chapter 9 – at 9.9.4 the conclusion of the land use assessment demonstrates a fairly high level assessment of agriculture based purely on planning scheme policy and statements, rather than a wider assessment of agricultural status – such as the July 2019 declaration. Victoria, unlike most other states, does not have a systematic process to identify 'high quality soils' or 'highly productive land'. Regional Growth Plans often do a better job at identifying important areas. An understanding of agriculture would lead to an understanding that irrigated horticultural land on alluvial soils would be of significant value.

Map 6 – Future Directions for the Economy in the Gippsland Regional Growth Plan identifies the Lindenow Valley as 'protect key agriculture and forestry and support food production for domestic and export



markets.³ Page 30 also has a strategy, not yet implemented, to "support the implementation of state policy by protecting the identified areas of strategic significance (agriculture and forestry)

and irrigation assets to help grow Gippsland and the state as an important food bowl for Australia and Asia." The 2019 recognition of the need to protect horticulture in the Mitchell River Flats by the Minister for Resources is further confirmation that this area is strategically significant.

Therefore the VFF believes the conclusion below is not supported by relevant government policy and does not appropriately categorise the strategic significance of agriculture.

The project is consistent with state and local planning policy, which encourage the extraction of mineral resources in accordance with acceptable environmental standards. A temporary loss of agriculture and forestry land will occur in the project area. An average of approximately 443 ha per year for 20 years is expected to be out of production, which encompasses the project's total timeframe for construction, operation and closure. Land in the project area is not identified as being of strategic significance for agriculture or forestry.

VFF recommends that DELWP review its internal guidance on / understanding of the potential impacts of proposals on different agricultural commodities and production systems. The VFF would welcome the opportunity to work with DELWP to ensure more holistic and rigorous considerations of project impacts on agriculture.

VFF recommends that DELWP provides to the VFF a copy of each scoping document for an EES in an agricultural area for comment prior to its finalisation.

Our Recommendations

Project considerations

- 1. The VFF recommends that on this consideration alone the project requires further investigations to establish the economic cost to production if control mechanisms do not deliver the promised environmental outcomes. Further investigation are required to understand the consequences and allow for the preparation binding agreements with all farmers who may be impacted by the mine. These agreements should respond to each control mechanism, the level of breach, the consequence of breach, how compensation will be calculated and administered and how integrated management systems will respond to key threats to each crop or production system.
- 2. VFF recommends that very careful consideration is given to all elements of Chapter 9 relating to agriculture. Is it comprehensive in its understanding of risk and consequence? Have / can the issue be appropriately controlled? What are the long term risks if there is a catastrophic failure? How will producers be compensated for impact of any non compliance issue / failure.
- 3. In relation to the mine site and land access the VFF recommends closer consideration of the following issues:
- Loss of carrying capacity there may be a requirement for producers to change how they run their operation with significant economic losses accumulating over time. Reduced genetic potential/breeding history (through sale of stock), reduced stock numbers impacting annual income e.g. wool or meat sales, agistment fees if producer is required to retain head numbers, increased input costs e.g. fertiliser, feed to boost carrying capacity.
 - Management of pest animals and weeds on buffer zones

³ https://www.planning.vic.gov.au/__data/assets/pdf_file/0026/94544/Gippsland-Regional-Growth-Plan-May-2014.pdf



- Biosecurity risk concerns particularly early on in the establishment of access routes onto and between properties
- Dust/water pollution. Increased dust pollution may have impacts on livestock health particularly in drought/dry seasons, for example increased dust in feedlots contributes to the prevalence of Bovine respiratory disease (BRD).
- Impact of dust on wool quality, quantity and value
- Fire risk/emergency response fire risk from the mine and management of traffic routes during times of emergency for example increased need for immediate access to truck stock or move stock along roads
- Asset loss and compensation livestock should be classified as assets/infrastructure
- Uncertainty inability for producers to forward plan with short term and long term plans uncertain.
 This has become a crucial part of business management for producers in the area particularly after drought.
- 4. VFF supports the preparation of the management plans for considerations such as noise, dust / air quality and water. These management plans should not purely focus on a dwelling as there will be significant numbers of agricultural workers exposed to noise and dust in the paddocks and often much closer than the dwellings which are the main focus, demonstrating a more urban based understanding of risk.
- 5. The VFF recommends that:
- That Kalbar commit to grow and improve local housing stock
- That Kalbar seeks support from the Federal Government for visa programs to target any shortages in agricultural workforce
- That Kalbar commit to ensure the community benefits from the mine through a grants process
- 6. The VFF recommends the EPA Works Approval application should be revised to clearly address issues relating to the beneficial uses of land for agriculture.

Systemic considerations – considerations of agriculture

- 7. The VFF believes that all EES scoping documents for proposals on or with potential impact to agricultural land should be forwarded to the VFF for comment and distributed to landholders in the area. Landholder knowledge and agricultural considerations are critical to the effectiveness of the assessment of impacts to the environment and the reliance on landholders seeing a notice in a paper rather than using modern consultation is not conducive to the level of transparency and oversight envisaged by the legislation.
- 8. The VFF recommends that the Minister review his decision to only have government representatives on Technical Reference Groups when agricultural land is involved. Councils, CMAS and government agencies rarely have the level of understanding of different commodities or production systems within commodities to be able to properly give oversight of technical documents relating to agriculture.
- 9. VFF recommends that DELWP review its internal guidance on / understanding of the potential impacts of proposals on different agricultural commodities and production systems. The VFF would welcome the opportunity to work with DELWP to ensure more holistic and rigorous considerations of project impacts on agriculture.
- **10.** VFF recommends that DELWP provides to the VFF a copy of each scoping document for an EES in an agricultural area for comment prior to its finalisation.





David Jochinke President



The Victorian Farmers Federation

Victoria's agricultural production accounts for over \$13 billion of Victoria's economy and over 25 per cent of the State's exports per annum. Victoria's farmers produce high quality food and fibre, produced to high standards of safety, with little taxpayer support, and to some of the strictest environmental and highest animal welfare controls in the world.

The Victorian Farmers Federation (VFF) represents a farming community which creates a profitable, sustainable and socially responsible agriculture sector connecting with consumers.

We have a proud history representing Victoria's farm businesses since 1979 – primarily family farms that produce the eggs, grain, fruit and vegetables, meat, and milk that help to feed Victoria's six million people, and the bigger global community, every day.

The VFF consists of commodity groups: dairy (United Dairyfarmers of Victoria), grains, horticulture (including Flowers Victoria), intensives (chicken meat, eggs and pigs), and livestock – and expert committees representing; water, land management, agricultural and veterinarian chemicals, farm business and rural development, and workplace relations.

Our purpose is to make Victorian farmer's lives better; enhancing Victoria's future. Our mission is to ensure a community of farmers creating a profitable, sustainable and socially responsible agricultural industry connecting with all Victorians.





Our place in Victoria

What we do



- Victoria's 20,775 farms cover 10.6 million hectares
- We are 24.2% of Australian farmers
- · 91% family operated, with only 2% foreign owned



- · We employ 87,800 people mostly in regional areas
- \$4739 of food consumed each year by every Australian
- As a net exporter we have long term food surity



- Our annual production is \$13.16 billion, 3.5% of Victoria's economy
- · 27.8% of Victoria's exports are agricultural product valued at \$11.9 billion

How we do it



Farmers invest \$80 million in R&D



Every R&D \$1 converts to \$12 in farmer generated impact



2.7% productivity growth through innovative efficiency gains





Water consumption reduced by 7% from 2014-2015 Land conservation has increased to 18% of total land

63% reduction in greenhouse gas emissions between 1996-2016

Farmers spend \$20,000 annually on feral animals and pest weeds

mass.



3.5 million beef cattle

140 million chickens

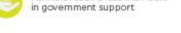
1.1 million dairy cows producing 6.186 billion litres of milk

65.992 sows

13.1 million breeding ewes and a fleece clip of 66,100 tonnes

6.5 million tonnes of grain

\$2.35 billion in horticultural production







Avoidance, management and mitigation measures

Attracting and maintaining labour in the region is essential for both, the agriculture and mining sectors. The mining sector has reported similar issues to agriculture about shortages in skilled and unskilled labour.⁷³).

Important mitigation actions should involve joined approaches by Kalbar and horticulture landholders (for instance via an established working group, refer to section 6.8.6) to determine measures to attract and retain a local workforce from the region and, where local labour cannot fill the gap, to attract workers from other regions where unemployment rates are high. A focus should be on sourcing and upskilling local labour (i.e. from the Eastern Gippsland and Wellington Local Government Areas; [LGAs]).

Measures could include infrastructure services and exploring opportunities to work with together to build local capacity and skills, especially "transferable skills" in trades and other skills sets that foster technical competency and accreditation where required. Both industries together can work with local Job Search Providers and registered training organisations (RTOs) to foster upskilling initiatives.

Both sectors may engage with initiatives like "Year 13"⁷⁴. Year 13 have 1.5 million users on the platform aged between 15 – 25 and focus on employment, education (partnering with TAFE's and universities) and travel. They conducts digital events that focus on the "Future of Work". A previous online conference by Year 13 had 5,585 webinar attendees and 552 schools in attendance.

Providing information about career pathways⁷⁵ and how to start working in the vegetable industry can help with attracting young people and those looking for a career change.

It will be important for landholders to take up initiatives under the Victorian Government's Agriculture Workforce Plan⁷⁶.

Migrant work visa schemes have been and will remain important to address seasonal workforce requirements in horticulture (harvest, packing). A new Horticulture Industry Labour Agreement commenced from 1 January 2020. Under this scheme, horticultural employers can apply to sponsor a migrant worker for a Subclass 482 Temporary Skill Shortage (TSS) visa in one of 31 approved occupations⁷⁷.

ⁱⁱ Horticulture Report p35

Horticulture producers have raised concern that contaminants, especially radioactive particles from the project, site may enter waterways (surface and/or groundwater) via leaching or direct runoff from the site into surrounding waterways. Both uranium and thorium exist in the rare-earth bearing minerals (monazite and xenotime) being extracted from the site of the Project. Horticulture producers stated concern of an increased risk of discharge during extreme rainfall events and that this may occur during conditions that cause region wide flooding.

The most significant long-term effect of exposure to radiation from radioactive elements mentioned, is a fear of cancer, which might occur several years after the exposure.

Although the level of concern does vary according to the proximity to the mine site and the type of production enterprises (i.e. organic or conventional), there is a general consensus from all horticulture producers that any radioactive dust entering the environment would be unacceptable. The broader concern is that the region's clean-green reputation could be significantly tarnished should the threat of radioactive dust particles impact on safe food production or the perception of safe food production.

р37 —



- Consumption of vegetables containing low levels of radioactivity as a result of being grown in soil containing elevated concentrations of natural radionuclides. FINDING – the impact of dust deposition on existing soil concentrations as a result of the project is of inconsequential statistical significance.
- Consumption of vegetables contaminated with airborne radioactive dust which has settled directedly onto vegetables. FINDING – the washing procedure of vegetables at the farm gate and prior to consumption reduces the potential for any uptake.

Conclusion from the dust risk, avoidance and mitigation review

This Horticulture Impact study concludes that, given existing mitigation procedures by producers to manage dust generated by their own and neighbouring operations, and that dust will be effectively managed on the project site via the appropriate management and mitigation techniques, and dust generation is monitored in accordance with the on-site environmental management plan and Environmental Protection Authority (EPA) protocol for environmental management, then the aspect of dust generated on the site is unlikely to have an economic impact on horticulture producers in the region. The probability of a dust contamination event, given mitigation procedures already in place by landholders and to be introduced by Kalbar is considered low. Economic consequences that could be attributed solely to a dust contamination event due to the mine's operation were not assessed based on a lack of baseline data (i.e. typical dust contamination by current agricultural activities in the region) and the low likelihood of such an event occurring given mitigation.